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Pictorial notes on the early stages on the *Lepidoptera* of Turkey –I

Muhabbet Kemal Ahmet Ö.Koçak

Abstract: Pictorial notes on the early stages on the *Lepidoptera* of Turkey – I. *Cesa News* 90: 1-14, 21 figs.

In this paper, early stages of some lepidopteran species from Turkey are illustrated together with the necessary collecting and rearing data. Caterpillar of *Hyles nicaea* (*Sphingidae*) from Van (Gevaş), caterpillars, pupae, adults of *Eudemis profundana*, *Eudemis porphyra* (*Tortricidae*) from Van (Çatak), pupa and adult of *Cochylis posterana* (*Tortricidae*) from Van (Gevaş), pupa and adult of *Archips xylosteanus* (*Tortricidae*) from Van (Çatak), caterpillar, pupa and adult of *Lycaena alciphron* ssp. *melibaeus* from Van (Gevaş) are illustrated. These information are based upon the material from Turkey for the first time. Hitherto published papers on this subject by the Cesa collaborators are also mentioned.

Key words: *Lepidoptera*, *Sphingidae*, *Tortricidae*, *Lycaenidae*, early stages, bionomy, fauna, Turkey

During their field studies within the Project of Entomofauna of Turkey (Cesa), the authors have chance of observe a lot of caterpillars of various *Lepidoptera*, as well as other early stages, or previously unreported larval food-plants. Results of such observation will be published henceforth in this journal. Earlier publications on this subject made by the Cesa partners may be summarized as follows:

Koçak (1982) published detailed information on the results of his survey on *Archon apollinus* (*Papilionidae*) in Turkey, including early stages and food-plants of some populations. He reported also larval food-plant and the occurrence of *Parnassius apollo* (*Papilionidae*) in northern part of Ankara Province (Koçak,1989). Morphological differences in larval stage between *Cynaeda dentalis* and *C. gigantea* (*Pyrallidae*), together with food-plant information have been first published by Koçak (1989). Full grown caterpillar of *Hyles euphorbiae* (*Sphingidae*) found from Darvas (Isparta Province) has been reported and described by Koçak (1990). Koçak & Seven (1990) described briefly the egg and larval stages of *Anthocharis cardamines* (*Pieridae*) obtained from Kızılcahamam (Ankara Province). External morphology of the egg of *Clethrogyna dubia* ssp. *turcica* (*Lymantriidae*) obtained from Ankara Province has been described by Suludere (1991). In

the short paper on the early stages of Turkish Lepidoptera have been published by Koçak & Seven (1991). Koçak & Vural (1998) clarified the mis-identification of the food-plant called as "*Escallonia serrata*" for some Turkish Lepidoptera used by O. Staudinger in 1878-1879. Koçak & Kemal (2007) in their monumental report illustrated numerous early stages of Turkish Lepidoptera together with their collection data. For the first time, the early stages of *Princeps demoleus* (*Papilionidae*) have been illustrated from in Turkey (Nusaybin) by Kemal & Akdeniz (2008). In short notes, larva and pupal stages of *Orthosia rubricosa* (*Noctuidae*) from oak woodland of Muş Province (Buğlan Pass) and Bitlis (Mutki) reported and illustrated (Kemal & Koçak, 2008; Akın, 2011). Kemal & Aydın (2008), in the spring aspect of diurnal *Lepidoptera* of Kulp district (Diyarbakır Prov., SE Turkey), illustrated of two species of *Nymphalis*. Kemal, Koçak & Aydın (2008) illustrated caterpillar of *Allancastris deyrollei* ssp. *eisneri* from Ömerli (Mardin Province), during their scientific trip in 2008. Kemal & Koçak (2008) reported pre-imaginal stages of *Esperarge clymene* from Van Province (East Turkey). Kemal & Koçak (2008) illustrated full grown larva of *Shargacucullia verbasci* (*Noctuidae*) from Tahir Pass (Ağrı Province) in 2008. Kemal & Karabacak (2008) described and illustrated early stages of *Ephelis cruentalis* (*Pyrallidae*). Kemal & Koçak (2008) illustrated full grown larva of *Malacosoma neustria* (*Lasiocampidae*) on *Quercus* sp. from Bozburun (Aşkale, Erzurum Prov., NE Turkey) in 2008. Koçak, Kemal, Aydın & Güngen (2008) illustrated a full grown caterpillar of *Saturnia pyri* (*Saturniidae*) from Bingöl Province (E. Turkey). *Colias crocea* female laid egg on a *Fabaceae* plant at Artos Mount (Van Prov. (Kemal & Koçak, 2008). Larvae of *Choreutis* [nemorana] (*Choreutidae*) on *Ficus carica* have been illustrated from Malatya Province (Kemal & Koçak, 2008: figs. 1, 2). Özkol, Kayci & Pınar (2008) reported larval, pupal stages and larval food-plant of *Cnephasia chrysanthæana* (*Tortricidae*) from Van Province (E. Turkey). Kemal and Özkol (2008) reported larval, pupal stages and the *Rheum ribes*, larval food-plant of *Agrochola lactiflora* (*Noctuidae*) from Van Province (E. Turkey). Kemal & Koçak (2008) illustrated larval, pupal stages and larval food-plant of *Agrochola lactiflora* (*Noctuidae*) from Van Province (E. Turkey). Full grown larva and pupa of *Agrochola consueta* (*Noctuidae*) on *Quercus* sp. from Hesko (Şirvan, Siirt Prov.) (Kemal & Koçak, 2008). For the first time, Kemal (2009) recorded in video early stages and larval food-plant of *Callophrys mystaphia* (*Lycaenidae*) from Erek Mountain (Van Province). Kemal et al. (2009) on the insects of İzmir, illustrated eggs, caterpillars, pupa and the adult of *Euchloe ausonia* Hbn. (*Pieridae*) from vicinity of İzmir. Özkol, Kayci and Pınar (2009) illustrated and reported on the biology of *Zygaena* (*Mesembrynus*) *tamara placida* from Van Province (East Turkey). Özkol & Sefalı (2009) illustrated pupa and adult of *Pieris persis* together with larval food-plant *Barbarea plantaginea* (*Brassicaceae*). Kemal & Koçak (2009) illustrated *Pammene gallicolana* (*Tortricidae*) emerged from the gall of *Andricus multiplicatus* (*Cynipidae*, *Hym.*) from Van Province (Çatak). Kemal & Koçak (2010) reported several tortricid species reared on the galls of *Andricus* (*Cynipidae*) from Kato Mountains (Van Province, Çatak). Authors also reported full grown caterpillar of *Ethmia* sp. (*Ethmiidae*) on *Boraginaceae* from the same region. Full grown larva and pupa of *Amata hakkariana* (*Ctenuchidae*) have been illustrated for the first time. Kemal et al. (2010) illustrated early stages of several butterflies and moths from Mutki district (Bitlis Prov.). Koçak & Kemal (2010) also reported and illustrated several moth species from Ankara, Malatya and Bingöl Provinces. Larva, pupa and adults of *Colotis fausta* (*Pieridae*) are reported from Siirt Province (Şirvan) and illustrated for the first time based upon Turkish material (Kemal, Koçak & Seven, 2010). Larva, pupa, cocoon and larval food-plant of *Choreutis muhabbet* (*Choreutidae*) are illustrated and reported in Bitlis Province (Kemal & Akın, 2011). Pupa, food-plant and adult of *Satyrium abdominalis* (*Lycaenidae*) are given from Van Province (Kemal & Mükemre, 2011). Larva of *Calophasia lunula* (*Noctuidae*) on *Linaria* (*Plantaginaceae*) are reported from Şirvan (Siirt Province) for the first time (Kemal, Koçak & Seven, 2011). Kemal described and illustrated larval stage of *Satyrium ledereri* (*Lycaenidae*) from Iğdır for the first time in Turkey (Koçak & Kemal, 2012). Larva and pupa of and larval food-plant of *Archon apollinaris* (*Papilionidae*) are given from NE part of Van Lake basin (Kemal & Koçak, 2013). Early stages of *Pontia chloridice* (*Pieridae*), together with its larval food-plant are illustrated from Van Province (Kemal & Koçak, 2013).

Below, early stages of several lepidopteran species are illustrated. All the specimens were collected, reared, and identified by the authors. All these information are based upon the material from Turkey for the first time.

On the larval stages of *Hyles nicaea* (*Sphingidae*) at Artos Mountain (Gevaş, Van Province)**(Figs.1-6)**

On early September, 2012 authors observed larval stages of *Hyles nicaea* Prunner (*Sphingidae*) on the slopes of Artos Mountains during feeding on *Euphorbia* sp. (*Euphorbiaceae*). Below, from younger to full grown stages of the caterpillar between 2-13 September, are illustrated.



Fig. 1 – *Hyles nicaea* (*Sphingidae*) from Turkey, Van Prov., Gevaş, Artos Mts. 1950m 2 9 2012 M Kemal (Cesa)

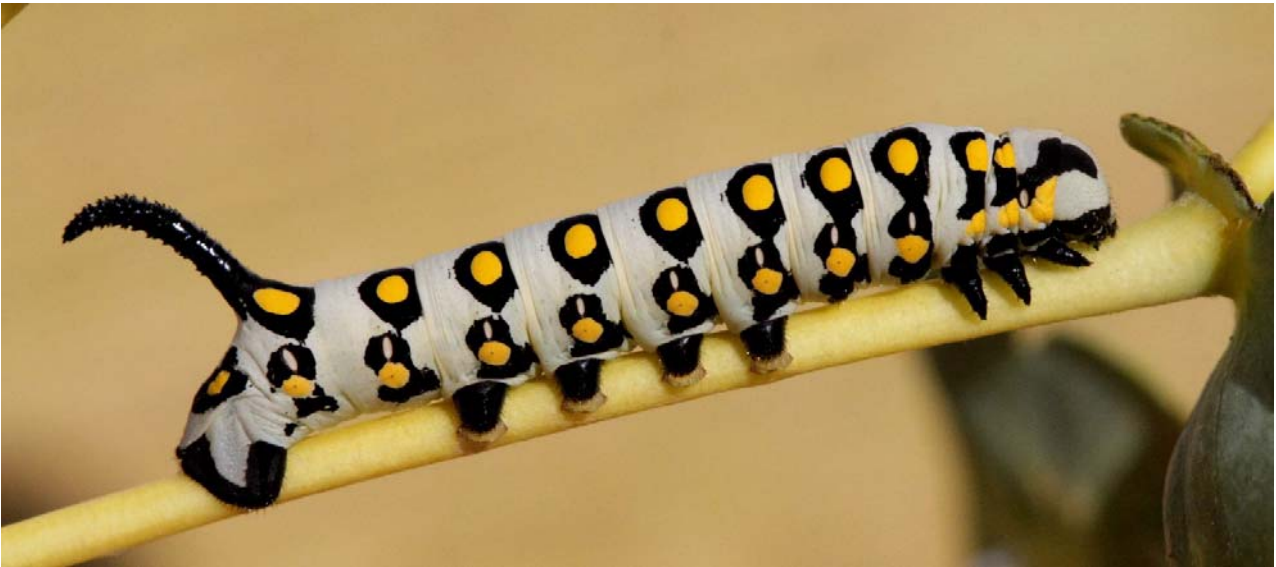


Fig. 2 – *Hyles nicaea* (*Sphingidae*) from same place 4 9 2012 M Kemal (Cesa)



Fig. 3 – *Hyles nicaea* (Sphingidae) from same place 8 9 2012 M Kemal (Cesa)



Fig. 4 – *Hyles nicaea* (Sphingidae) from same place 13 9 2012 M Kemal (Cesa)



Fig. 5 – *Hyles nicaea* (Sphingidae) from same place 13 9 2012 M Kemal (Cesa)



Fig. 6 – *Hyles nicaea* (Sphingidae) from same place, 13 9 2012, M Kemal (Cesa)

Early stages of two *Eudemis* species (Tortricidae) from Çatak, Van Province (Turkey)

(Figs.7-14)

In early May, 2008, authors recorded tortricid larvae on *Quercus infectoria* (Fagaceae) from Van Province (East Turkey). After rearing, adults emerged as two different species of *Eudemis* Hübner, i.e., *Eudemis profundana* ([Denis & Schiffermüller],1775) (**Figs.7-11**), and *Eudemis porphyra* (Hübner,[1799]) (**Figs.12-14**). Images concerning the early stages of these species are given below:



Fig. 7 – *Eudemis profundana* (full grown caterpillar). Turkey, Van Prov., Çatak, Amata valley 1600m 9 5 2008 M Kemal (Cesa)



Fig. 8 – *Eudemis profundana* (pupal skin). Turkey, Van Prov., Çatak, Amata valley 1600m 10 6 2008 M Kemal (Cesa)



Fig. 9 – *Eudemis profundana* (emerged adult). Turkey, Van Prov., Çatak, Amata valley 1600m 10 6 2008 M Kemal (Cesa)



Fig. 10 – *Eudemis profundana* (pupa & adult), another example from the same place, emerged on 14 6 2008 M Kemal (Cesa)



Fig. 11 – *Eudemis profundana* (adult), same specimen with the above, emerged on 14 6 2008 M Kemal (Cesa)



Fig. 12 – *Eudemis porphyra* (full grown caterpillar). Turkey, Van Prov., Çatak, Amata valley 1600m 9 5 2008 M Kemal (Cesa)



Fig. 13 – *Eudemis porphyrana* (pupal skin, dorsal & ventral side). Turkey, Van Prov., Çatak, Amata valley 1600m 10 6 2008 M Kemal (Cesa)



Fig. 14 – *Eudemis porphyrana* (adult), emerged on 14 6 2008 M Kemal (Cesa)

Observation on a newly emerged cohylid at Artos Mt., Gevaş (Van Province)**(Figs. 15-16)**

During an excursion to Artos Mt. on 2 September, 2012, authors observed a newly emerged *Cochylis posterana* Zeller on *Carduus nutans*, its larval food-plant, together with the pupal skin. Illustrations are given below.



Fig. 15 - *Cochylis posterana* (Tortricidae) ex pupa (in situ) Turkey, Van Prov. Gevaş, Artos Mt. 2000m, 29 2012, M Kemal (Cesa)



Fig. 16 - *Cochylis posterana* (Tortricidae) pupal skin in flower of *Carduus nutans* (in situ) Turkey, Van

Prov. Gevaş, Artos Mt. 2000m, 29 2012, M Kemal (Cesa)

**Pupa and adult *Archips xylosteanus* (Linnaeus) (*Tortricidae*) from Çatak district
(Van Province)**

(Figs. 17,18)

On 1 June, 2008 authors recorded a tortricid pupa on the foliage of a *Pyrus* species (*Rosaceae*) in Çatak district, Van Province. A male emerged on 4 June in captivity. It looks like a pale specimen of *Archips xylosteanus* (Linnaeus, 1758). Illustrations are given below:



Fig. 17 - see below.



Fig. 18 - *Archips xylosteanus* (Tortricidae) from Turkey, Van Province, Çatak, Amata valley 1650m. pupa obtained on 1 6 2008 [above]; adult male emerged on 4 6 2008, in captivity. M Kemal (Cesa)

**Larva and Pupa of *Lycaena (Alciphronia) alciphron* (Rottemburg) (Lycaenidae)
from Artos Mt., Gevaş, Van Province**



Fig. 19 – Full grown caterpillar of *Lycaena (Alciphronia) alciphron* ssp. *melibaeus* Stgr. On *Rumex*. Turkey, Van Province, Gevaş, Artos Mt., 1850m, 24 6 2012 M Kemal (Cesa)



Fig. 20 – Pupa of *Lycaena (Alciphronia) alciphron ssp. melibaeus* Stgr. On *Rumex*. Turkey, Van Province, Gevaş, Artos Mt., 1850m, 28 6 2012 M Kemal (Cesa)



Fig. 21 – Emergent male of *Lycaena (Alciphronia) alciphron ssp. melibaeus* Stgr. Turkey, Van Province, Gevaş, Artos Mt., 1850m, 8 7 2012 M Kemal (Cesa)

In late June, 2012 authors observed caterpillar of *Lycaena alciphron* ssp. *melibaeus* Staudinger on *Rumex* sp. (*Polygonaceae*) from Artos Mt., Gevaş, Van Province. It pupated on 28 June, and adult emerged on 8 July 2012, in captivity. Illustrations are given above (**Figs. 19-21**).

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Pseudocephaleia praeteritorum (Semenov)
a new record for Turkey
(Hymenoptera, Pamphiliidae)

Muhabbet Kemal Ahmet Ömer Koçak

Abstract: *Pseudocephaleia praeteritorum* (Semenov) a new record for Turkey (Hymenoptera, Pamphiliidae). Cesa News 90: 15-16, 1 fig.

This short note deals with the first record of *Pseudocephaleia praeteritorum* (Semenov) (Pamphiliidae) in Turkey. The species is described briefly, together with complementary images to the morphology.

Key words: *Pseudocephaleia praeteritorum*, Hymenoptera, Pamphiliidae, Symphyta, fauna, Şırnak, Turkey.

In 2011, authors recorded a pamphiliid species resembling to *Caenolyda* from South East Turkey (Judi Mount, Şırnak Province) (Koçak, Kemal & Güngen, 2011). Captured specimen has been illustrated in that paper with an explanation: “*Caenolyda* sp.? n.” Since then, no scientific comment has been received from the specialists about its identity.

After studying the important publication on European Pamphiliidae thoroughly, we came to the conclusion that our specimen belongs to *Pseudocephaleia praeteritorum*, described by Semenov in 1934. This species is currently placed in the genus *Pseudocephaleia* Zirngiebl, 1937 (Achtenberg & Aartsen, 1986). Especially abdominal markings, forewing venation and maculation, as well as black markings on the head of *P. praeteritorum*, given by Achtenberg & Aartsen (figs. 36-38) fit very well to our specimen. Below, we submit further morphological images in order to contribute to the poorly known species. The genus and species has not been reported from Turkey so far (Taeger, Blank & Liston, 2010: 92).

Brief morphology:

***Pseudocephaleia praeteritorum* (Semenov, 1934) (Fig.1)**

Wingspan: 22mm, Forewing: 10.5mm, body: 10mm. Antenna: 19-segmented.

Head broad, general colouration reddish, pale yellowish long after the death of specimen. vertex black with three extensions anteriorly. Eyes and antennae black. Ocelli brownish. Labrum black. Thorax mostly black. Venations and blackish maculation well developed on forewing. Outer dark brown band exceeds slightly vein 3r-m on forewing. On hindwings dark markings slight, no transversal band developed. Abdomen reddish orange two terminal segments black on median part. Underside paler, 5 abdominal sternites with well developed roundish lateral black markings. Legs black.

Biology: Unknown. Larval food-plant: Unknown.

Flight period: Adult flies in May.

Habitat: Openings of disturbed Oakwoods at 890m above sea level.

Range: Romania, former Yugoslavia, Albania, Russia (Altai Mountains) (Achtenberg & Aartsen, 1986); Turkey (present record).

Material: Single specimen taken from Turkey, Şırnak Province, Judi Mount 890m 8 5 2011 leg. A. Güngen (coll. Cesa).

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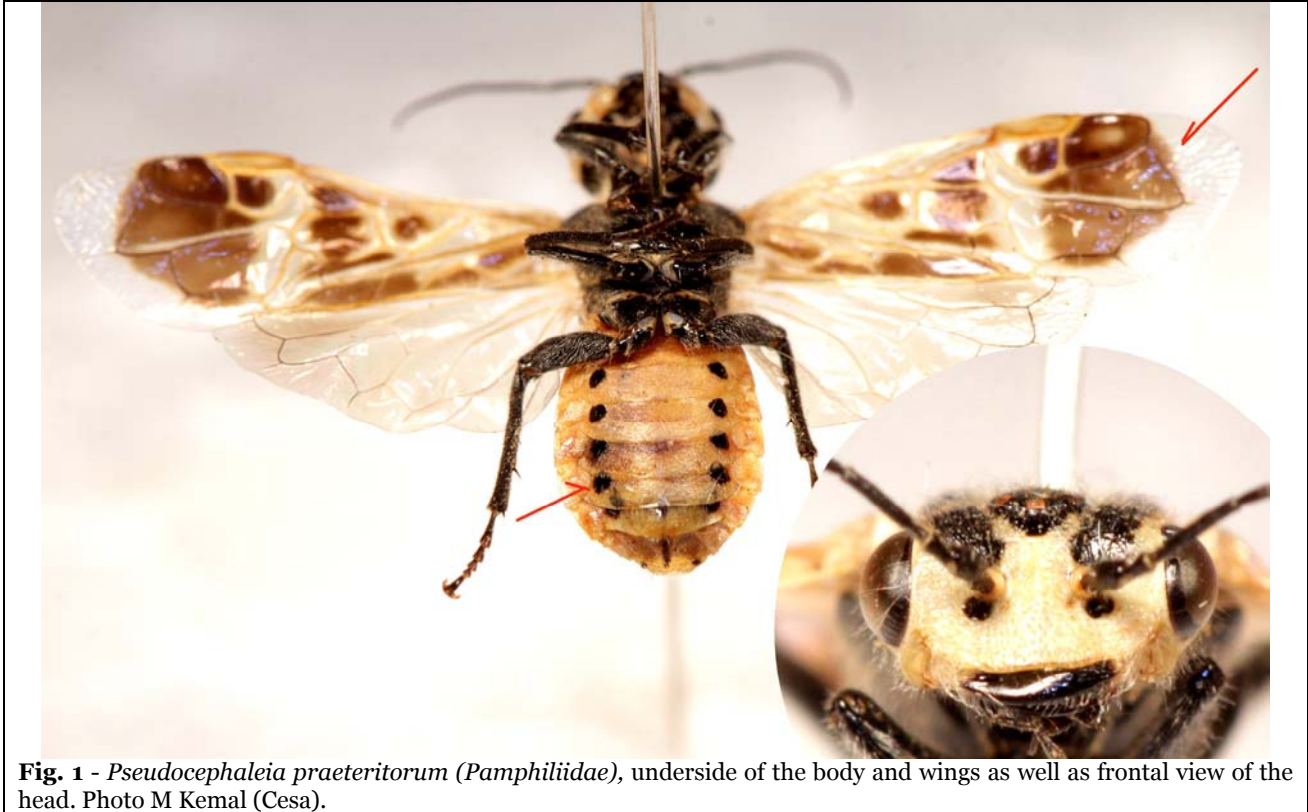


Fig. 1 - *Pseudocephaleia praeteritorum* (Pamphiliidae), underside of the body and wings as well as frontal view of the head. Photo M Kemal (Cesa).

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Bankisus oculatus Navas of Limpopo Province (South Africa) (Neuroptera, Myrmeleonidae)

Muhabbet Kemal Ahmet Ömer Koçak

Abstract: *Bankisus oculatus* Navas of Limpopo Province (South Africa) (Neuroptera, Myrmeleonidae). *Cesa News* 90: 16-17, 1 fig.

This short note deals with the occurrence of *Bankisus oculatus* in Soutpansberg Mountains (Limpopo Prov., South Africa). Captured specimen is also illustrated.

Key words: *Bankisus oculatus*, Myrmeleonidae, Neuroptera, fauna, Soutpansberg Mountains, Limpopo Province, South Africa.

During excursions of the authors to Soutpansberg Mountains in 2003 within the Project work on Entomofauna of Old World (Cesa), two specimen of ant-lions were recorded in the vicinity of Medike (820m) on 23 November (**Fig.1**). South African *Myrmeleonidae* fauna has been investigating by Mansell for a long time. In his publication, Mansell (1985) reported that the genus *Bankisus* Navas,1912 is found in Afrotropical Region, from South Africa to Arabian Peninsula (Yemen, Saudi Arabia, Oman). *Bankisus oculatus* Navas,1912 is distributed from South Africa, Mocambique, Zimbabwe, Malawi, Tanzania, Ethiopia and Yemen. It is recorded in South Africa: Transvaal: Shirombe Pan, Punda Maria, Skukuza, Pretoria N., Percy Fyfe NR (Potgietersrus distr.), Nylsvley NR, Rustenburg NR, Soutpan (Pretoria), Wylliespoort; Natal: M'fongosi.

It is seen that the capture from Medike is a new record for *Bankisus oculatus* in Western Soutpansberg Mts., Transvaal (Limpopo).

Collected two specimens are preserved in the collection of the Cesa.

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Fig. 1 – *Bankisus oculatus* from South Africa Limpopo, Soutpansberg Mts. Medike 820m 23 11 2003 M.Kemal & A.Koçak leg. (Cesa)

<http://zoobank.org/urn:lsid:zoobank.org:pub:A434ED1A-4BE8-4A8A-B47A-5957A5DE478C>

Re-description of male and first record of *Syntormon filiger* Verrall from Mongolia (*Diptera*, *Dolichopodidae*)

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Abstract: Re-description of male and first record of *Syntormon filiger* Verrall from Mongolia (*Diptera*, *Dolichopodidae*). *Cesa News* 90: 18-21, 6 figs.

Male of *Syntormon filiger* Verrall, 1912, is re-described and reported from Mongolia for the first time. The male genitalia of the species are illustrated for the first time. Light micrographs of key characters are included.

Key words: *Diptera*, *Empidoidea*, *Dolichopodidae*, *Syntormon filiger* Verrall, Palaearctic Region, Mongolia, fauna.

Introduction

Syntormon filiger Verrall, 1912, is a rare species (e.g., Falk & Crossley, 2005), but being widespread from West Europe to Kazakhstan (Grichanov, 2013). The biology of this species is unknown. In the United Kingdom, adults have been recorded from May to September; habitat details refer to brackish pools behind shingle ridges, and saltmarsh (Falk & Crossley, 2005).

The species was re-described for the last time by O. Parent (1938), who used an outdated terminology. The male genitalia of the species were never illustrated. Here we re-describe and illustrate male of *S. filiger*, providing a new material found in the Voronezh State University (VSU) and the Zoological Institute of the Russian Academy of Sciences, St. Petersburg (ZIN).

Material and methods

Morphological terminology and abbreviations (for wing veins) follows Cumming & Wood (2009). Body length is measured from the base of the antenna to the posterior tip of epandrium. Wing length is measured from the base to the wing apex. The relative lengths of the tarsomeres should be regarded as representative ratios and not measurements. Male genitalia were macerated in 10% KOH. Figure showing male genitalia in lateral view is oriented as they appear on the intact specimen, with the morphologically ventral surface of the genitalia facing up, dorsal surface down, anterior end facing right and posterior end facing left. Photos were made by Igor Grichanov, and line drawings were prepared by Olga Selivanova.

Syntormon filiger Verrall (Figs. 1–6)

Syntormon filiger Verrall, 1912: 58 (nom. nov. for *Rhaphium rufipes* Zetterstedt, 1849, nec Meigen, 1824, nec Zetterstedt, 1838); Parent, 1938: 453, 454 (Figs. 652–654); d'Assis Fonseca, 1978: 62 (Fig. 174).

Material (dried and mounted on pins). 1♂, Mongolia: Sukhe-Bator aimak [=Sükhbaatar Province], 6 km SW Ar-Bulgiin-Khuduk, 11.VII.1971, M. Kozlov (ZIN); 1♂, Kazakhstan: Kostanay Province, 140 km S Kostanay, 10.VI.1983, Korobov VSU).

Re-description. Male.

Body length: 2.0 mm.

Head. Frons dark green, matt, densely pollinose; face silvery white, broad, at middle hardly wider than height of postpedicel (0.9/0.8); antenna black, postpedicel long, with pointed apex, about 4 times longer than high, white pubescent, variable in shape; length ratio of postpedicel to

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arista-like stylus is also variable; ratio of postpedicel length to postpedicel height to arista length, 2.0/ 0.5 (0.6)/ 0.5 (07); arista apical, shortly pubescent; lower post-oculars pale yellow.



Fig. 1. *Syntormon filiger* Verrall, male (N Kazakhstan) – habitus



Fig. 2. *Syntormon filiger* Verrall, male (N Kazakhstan) – head



Fig. 3. *Syntormon filiger* Verrall, male (N Kazakhstan) – hind tarsus

Thorax. Dark green, mesonotum and pleura grey pollinose; proepisternum with white hairs; metaepimeron with row of white hairs; 6 dorsocentrals; acrostichals uniseriate; median scutellars strong, laterals as weak side hairs.

Legs. Mostly yellow; mid and hind coxae mostly dark; fore coxa with yellow anterior hairs and some strong black apical setae; tarsi dark from tip of basitarsus; hind basitarsus mainly brown; fore femur with long black ventral seta at base; fore tibia with 1 strong posterodorsal seta; fore basitarsus simple; 2nd–5th segments of the same tarsus shortened; mid femur with long black ventral seta at base, and with subapical pair of strong antero- and posteroventral setae; mid tibia with 3 antero- and 1 posterodorsal strong bristles, with strong anteroventral bristle; mid tarsus simple; hind femur with strong anterior subapical seta; hind tibia with 3 antero- and 3 posterodorsal bristles, and with some short ventral setae; hind basitarsus with 1 long and 1 short ventral setae; 2nd segment with 1 erect square-ended ventral seta at about middle, 3–4 times longer than diameter of segment, and with some short ventral hairs. Fore leg length ratio (from tibia to tarsomere 5): 24/13/5/3/2/4, mid leg: 35/16/8/5/4/5, hind leg: 43/10/9/6/3/4.

Wing. Hardly darkened; ratio of cross-vein *dm-cu* to apical part of CuA₁, 19/8; anal lobe developed; anal angle obtuse; lower calypter yellow, with fan of yellow setae; halter yellow.

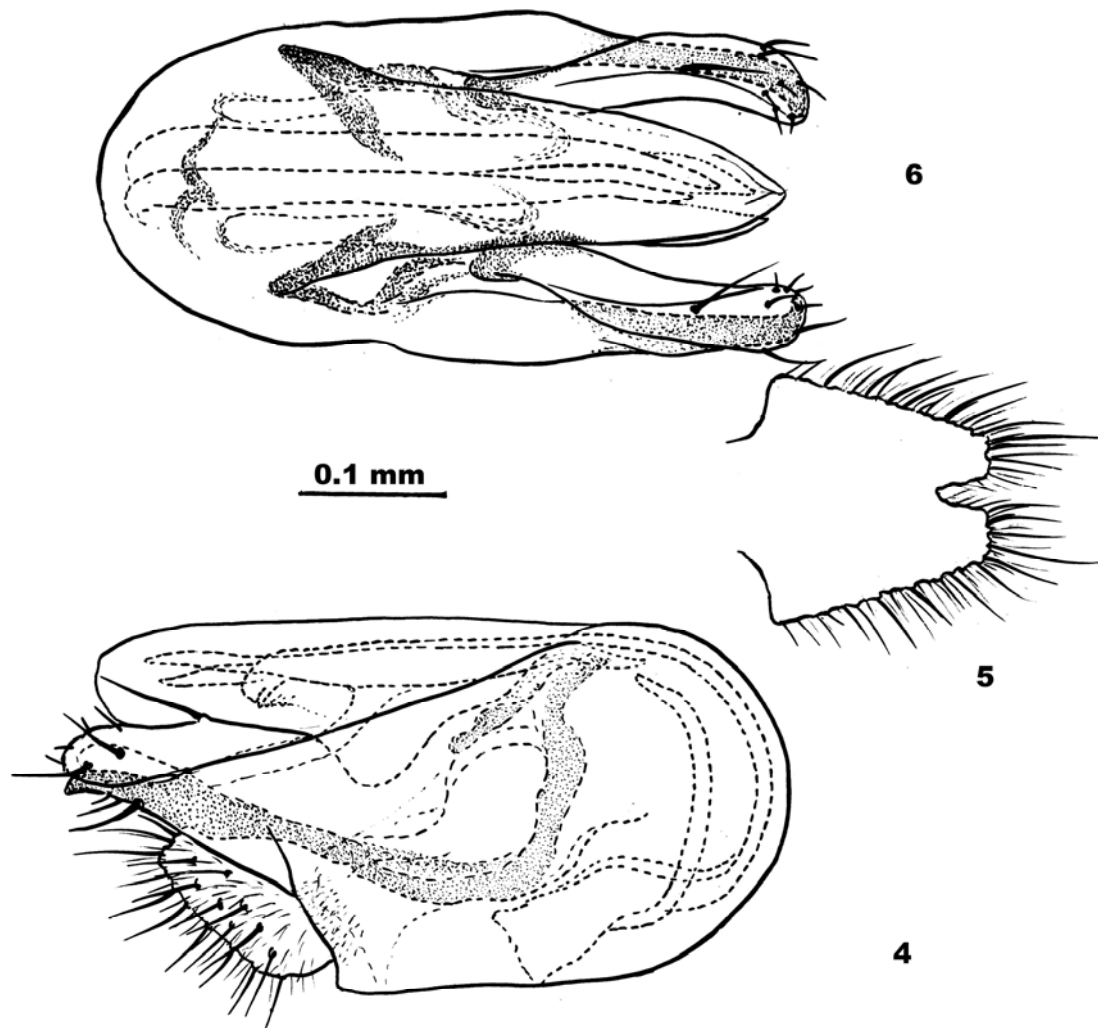
Abdomen. Mostly metallic green, and with black vestiture; 2nd to 4th terga mainly yellow or mainly dark; 5th segment ventrally expanded to form hood for hypopygium; hypopygium black, with brown cerci; epandrium narrowed distally, about 1.5 times longer than high; hypandrium broad, triangular at apex; dorsal surstylus narrow, cuneate; ventral surstylus oval at apex, with group of setae; dorsal projection trapezoidal, densely setose, cleft distally at middle, with subrectangular lobes.

Diagnosis. *S. filiger* is close to *sulcipes* group of species (Negrobov, 1975; Grichanov, 2013), differing from the latter in presence of long ventral seta at base of fore and mid femora; 1st and 2nd segments of hind tarsus each bearing one erect ventral seta at about middle, that on 2nd segment longer and blunt-ended; the other species of the group have no ventral seta on 2nd segment of hind tarsus.

Distribution. Type locality: Denmark: “ad Hafniam, ube in Amager”. Distribution: Austria, Belgium, Bulgaria, Czech, Denmark, Finland, France, Germany, Greece (North Aegean), Hungary, Kazakhstan (Astana, Kostanay), Mongolia, Russia (Astrakhan, Rostov, ?Novosibirsk), Netherlands, Poland, Sweden, UK, Ukraine (Crimea). First records of *S. filiger* from Mongolia and Kostanay Province of Kazakhstan.

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Figs. 4–6. *Syntormon filiger* Verrall, male (Mongolia) – 4) hypopygium laterally, 5) dorsal projection, 6) hypopygium ventrally

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